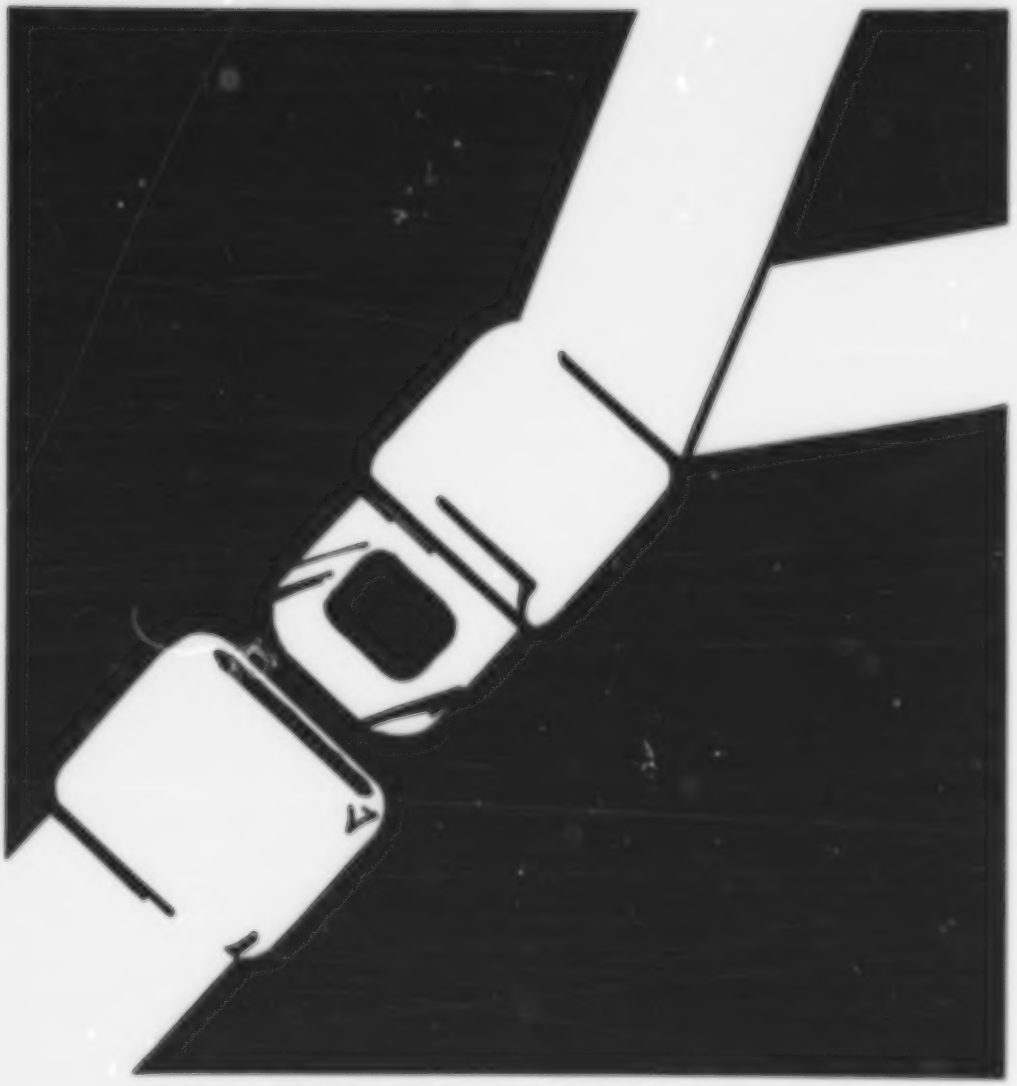
Driver, Vehicle and Traffic Accident Statistics Report – DDVL 1990



Manitoba
Highways and
Transportation
Driver and
Vehicle Licencing

92-01038/

DRIVER, VEHICLE AND TRAFFIC

ACCIDENT STATISTICS REPORT

1990

FOR FURTHER INFORMATION, PLEASE CONTACT:

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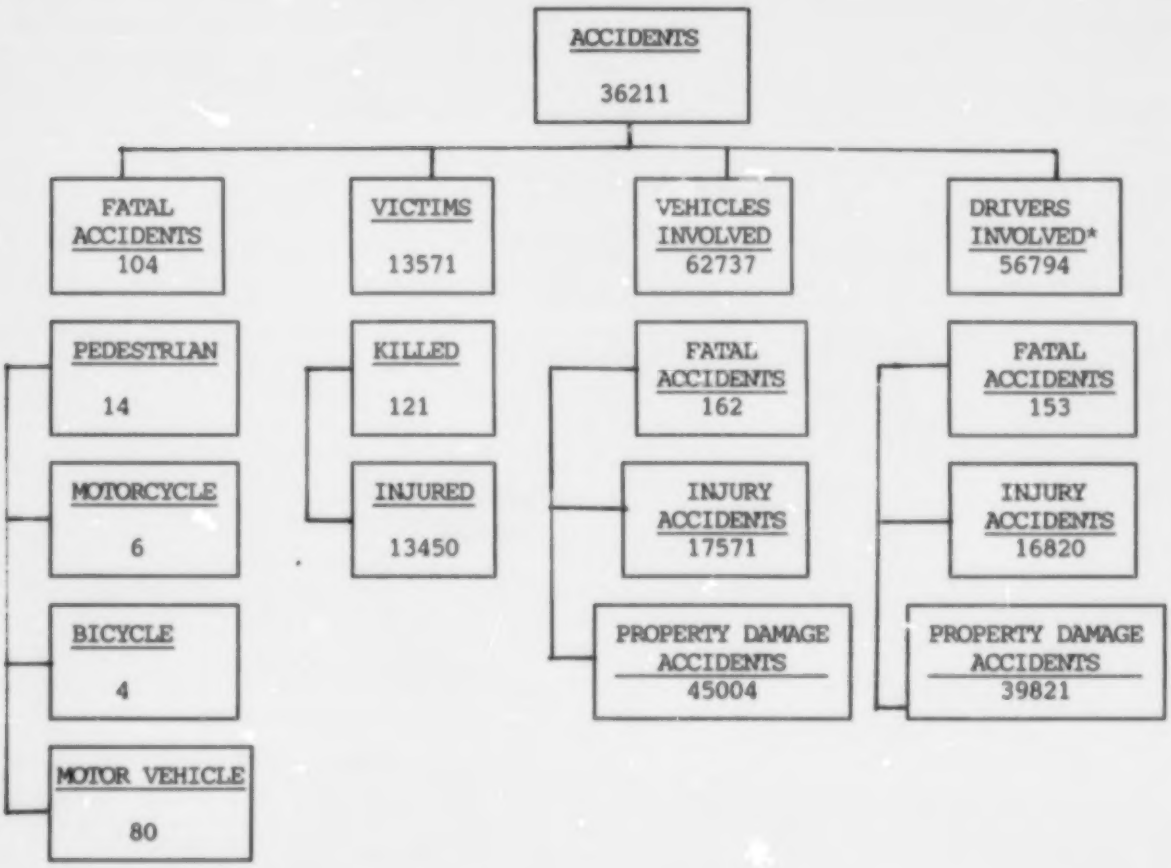
1990 TRAFFIC ACCIDENT CAPSULE SUMMARY



"Drivers involved" excludes the following vehicle type categories: bicycle, farm equipment, construction equipment, snowmobiles, trains, off-road vehicles, parked vehicles and pedestrians.

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ABBREVIATIONS, SYMBOLS, DEFINITIONS

P. DAMAGE	Property Damage
M	Male
F	Female
N.S.	Not Stated
K	Killed
I	Injured
%	Percent
-.-	Minus or Negligible Amount

Fatal Accident - a motor vehicle accident which results in death to one or more individuals within 30 days of accident date.

Injury Accident - a motor vehicle accident which results in non-fatal injury to one or more individuals.

Property Damage Accident - a motor vehicle accident in which damage to vehicle and/or property was $500 or more, and which did not result in death or injury.

SECTION 1

LICENCED DRIVERS

1990

MANITOBA DRIVERS
ACTIVE AND SUSPENDED *
BY AGE AND SEX
1990

DRIVER AGE	SEX	ACTIVE	SUSPENDED
16 - 17	M	11175	374
	F	9860	74
	TOTAL	**21035**	**448**
18 - 19	M	12079	606
	F	11189	86
	TOTAL	**23268**	**692**
20 - 24	M	30327	2958
	F	29029	303
	TOTAL	**59356**	**3261**
25 - 34	M	79393	7065
	F	75475	911
	TOTAL	**154868**	**7976**
35 - 44	M	72671	3920
	F	68228	638
	TOTAL	**140899**	**4558**
45 - 54	M	48517	2156
	F	42085	332
	TOTAL	**90602**	**2488**
55 - 64	M	40054	1440
	F	31195	221
	TOTAL	**71249**	**1661**
65 - 74	M	30762	1269
	F	23057	351
	TOTAL	**53819**	**1620**
75 - 84	M	13828	1360
	F	7558	556
	TOTAL	**21386**	**1916**
> 84	M	1484	1236
	F	478	264
	TOTAL	**1962**	**1500**
ALL AGES	M	340290	22384
	F	298154	3736
	TOTAL	**638444**	**26120**

* Active refers to a driver who holds a valid licence. Suspended refers to a driver whose licence is inactive.

MANITOBA DRIVERS
ACTIVE AND SUSPENDED
1981 TO 1990

LICENCING YEAR	ACTIVE DRIVERS	SUSPENDED DRIVERS
1981	572095	19864
1982	579813	21087
1983	595952	25564
1984	594100	24139
1985	606798	23338
1986	623406	22069
1987	629298	24524
1988	633339	25556
1989	634198	24345
1990	638444	26120

ANALYSIS OF ACTIVE AND SUSPENDED MANITOBA DRIVERS BY LICENCE CLASS 1990

LICENCE CLASS	ACTIVE DRIVERS MALE	FEMALE	TOTAL	% IN EACH CLASS	SUSPENDED DRIVERS MALE	FEMALE	TOTAL	% IN EACH CLASS
1.0	15359	403	15762	2.5	651	5	656	2.5
1.6*	5292	56	5348	0.8	105	0	105	0.4
2.0	4279	1163	5442	0.9	70	4	74	0.3
2.6*	993	60	1053	0.2	8	0	8	-.-
3.0	8725	338	9063	1.4	342	4	346	1.3
3.6*	2324	24	2348	0.4	46	0	46	0.2
4.0	8225	2075	10300	1.6	516	41	557	2.1
4.6*	2331	116	2447	0.4	67	1	68	0.3
5.0	258721	283039	541760	84.8	18308	3297	21605	82.7
5.6*	29743	3569	33312	5.2	1296	23	1319	5.1
6.0	38	10	48	-.-	14	0	14	-.-
7.0	4260	7301	11561	1.8	961	361	1322	5.1
TOTAL	**340290**	**298154**	**638444**	**100.0**	**22384**	**3736**	**26120**	**100.0**

* .6 refers to a motorcycle licence held in conjunction with another class of licence.

SECTION 2

VEHICLE REGISTRATIONS

1990

VEHICLES REGISTERED
UNDER THE HIGHWAY TRAFFIC ACT
1990

VEHICLE CLASS	CLASS TOTAL	% IN EACH CATEGORY
PASSENGER	539784	64.8
DELIVERY CAR	445	0.1
ANTIQUE	21	-.-
MOTORCYCLE & MOPED	11680	1.4
TRUCK	127958	15.3
FARM TRUCK	65002	7.8
SNOW VEHICLE (H.T.A.)	134	-.-
TRAILER	88029	10.6
TRACTOR	217	-.-
TOTAL VEHICLES REGISTERED	833270	100.0
CANCELLATIONS	102480	
FINAL TOTAL*	730790	

VEHICLES REGISTERED UNDER THE OFF-ROAD VEHICLES ACT

TOTAL VEHICLES REGISTERED	35664
CANCELLATIONS	486
FINAL TOTAL	35178

* VEHICLES REGISTERED AT THE END OF THE REGISTRATION YEAR.

COMMERCIAL VEHICLES REGISTERED
UNDER THE HIGHWAY TRAFFIC ACT
1990

VEHICLE CLASS	CLASS TOTAL	% IN EACH CATEGORY
C.T. TRUCK	25845	42.8
P.S.V. TRUCK	5017	8.3
U-DRIVE CAR AND TRUCK	2446	4.1
DEALER AND REPAIRER	4850	8.0
LIVERY - CITY	462	0.8
LIVERY - COUNTRY	287	0.5
TAXI - CITY	83	0.1
P.S.V. BUS	166	0.3
C.T. TRAILER (INCLUDES SEMI-TRAILER) *	21225	35.1
P.S.V. TRAILER	17	-.-
TOTAL VEHICLES REGISTERED	60398	100.0
CANCELLATIONS	5081	
FINAL TOTAL**	55317	

* COMMERCIAL TRAILERS USED IN CONJUNCTION WITH COMMERCIAL TRUCKS.

** VEHICLES REGISTERED AT THE END OF THE REGISTRATION PERIOD.

SECTION 3

TEN YEAR SYNOPSIS OF TRAFFIC ACCIDENTS

1990

SYNOPSIS

Total traffic accidents in Manitoba in 1990 decreased by 7.6% from the year previous. Although there was a very minor increase of 0.6% in injury accidents, there were substantial reductions in fatal and property damage accidents, at 16.8% and 10.2% respectively.

The year 1990 represents a downward trend in traffic accident involvement. This downward trend, common across Canada, appears to be primarily related to the widespread use of seat belts, educational measures by the provinces and the federal government designed to promote safe driving and tougher drinking and driving countermeasures.

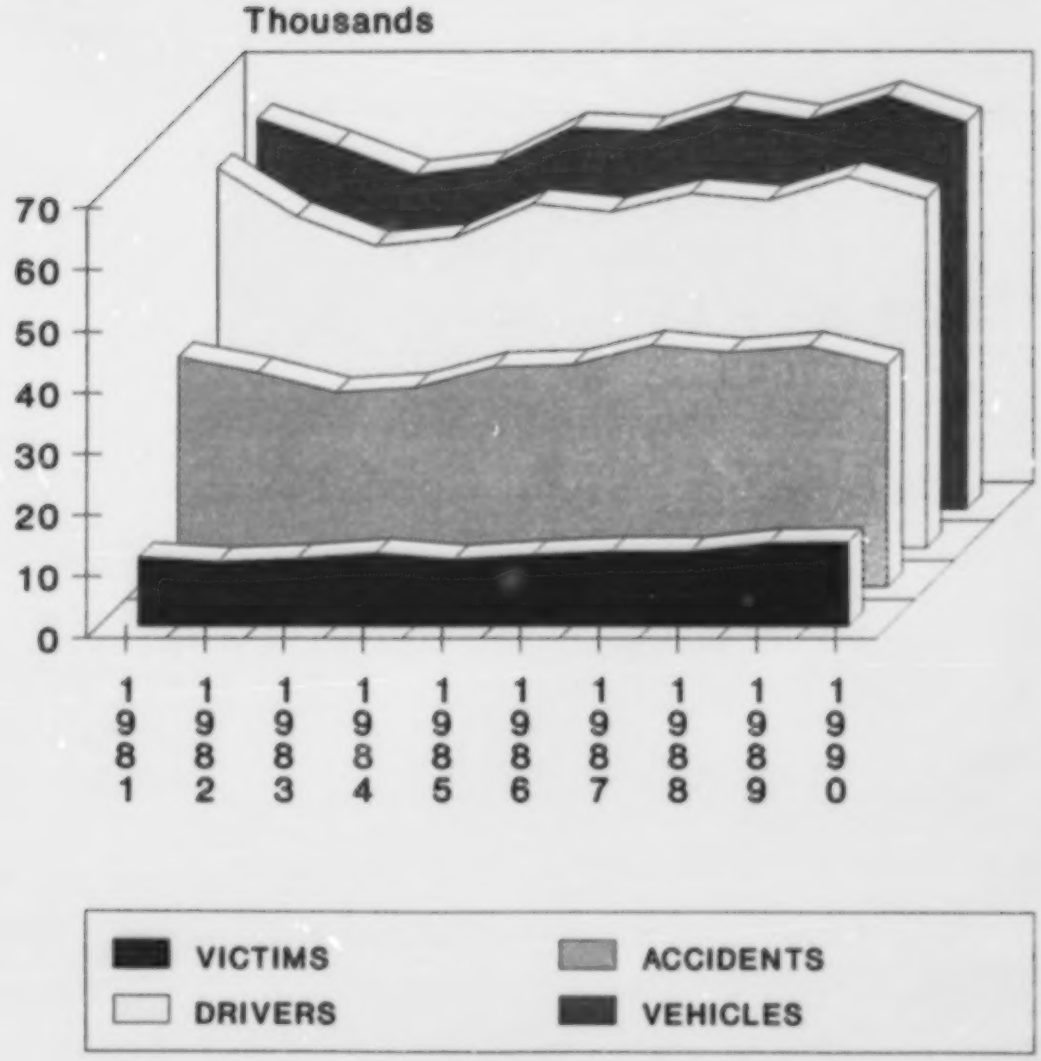
TRAFFIC ACCIDENTS
TEN YEAR SYNOPSIS
1981 - 1990

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
TOTAL ACCIDENTS	**37572**	**35057**	**31877**	**32548**	**35861**	**36252**	**39365**	**37251**	**39187**	**36211**
FATAL	168	132	126	112	109	142	138	127	125	104
INJURY	7929	7535	7935	7961	7648	8078	8493	8530	9448	9504
PROPERTY DAMAGE	29475	27390	23816	24475	28104	28032	30734	28594	29614	26603
TOTAL VICTIMS	**11168**	**10460**	**10931**	**11791**	**10817**	**11508**	**12095**	**12135**	**13475**	**13571**
KILLED	198	151	133	127	133	168	165	141	155	121
INJURED	10970	10309	10798	11664	10684	11340	11930	11994	13320	13450
TOTAL VEHICLES INVOLVED	**63437**	**59061**	**54284**	**55786**	**61936**	**61290**	**65317**	**63166**	**67188**	**62737**
FATAL	247	186	175	171	156	212	202	188	198	162
INJURY	13910	13310	14085	14131	13823	14523	15242	15353	17356	17571
PROPERTY DAMAGE	49280	45565	40024	41484	47957	46555	49873	47625	49634	45004
TOTAL DRIVERS INVOLVED	**61770**	**53906**	**49139**	**50450**	**55909**	**54658**	**57572**	**56473**	**60378**	**56794**
FATAL	242	181	169	163	145	196	186	176	192	153
INJURY	13576	12773	13424	13366	13186	13866	14505	14654	16633	16820
PROPERTY DAMAGE	47952	40952	35546	36921	42578	40596	42881	41643	43553	39821

GRAPHIC REPRESENTATION

TEN YEAR SYNOPSIS

1981 - 1990



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SECTION 4

TRAFFIC ACCIDENTS

1990

SYNOPSIS

* Total accidents decreased by 7.6%, from 39187 in 1989 to 36211 in 1990. Fatal accidents decreased from 125 to 104, a variance of 16.8%, and property damage accidents decreased 10.2%, from 29614 in 1989 to 26603 in 1990. A minor increase was experienced in injury accidents, which rose 0.6%, from 9448 in 1989 to 9504 in 1990. This decrease appears related to an increased safety awareness on the part of the public.

* Three months - December, January and February (in descending order) accounted for 32.2% of total accidents occurring in 1990.

* 33.2% of total accidents occurred on either Friday or Saturday.

* 23.5% of total accidents occurred between the hours of 3 p.m. - 6 p.m.

* 42.3% of fatal accidents occurred between the hours of 3 p.m. - 8 p.m.

* In urban areas, motor vehicle to motor vehicle collisions were the primary accident type, accounting for 84.1% of total reportable accidents, while in rural areas, the primary accident type in 1990 was motor vehicle/animal accidents, at 31.0 percent.

* 38.5% of total accidents occurred between intersections.

* 60.5% of total accidents, and 65.4% of fatal accidents occurred on undivided roadways.

* 53.5% of total accidents occurred on dry road surfaces, while 22.6% occurred under icy conditions.

* 93.5% of total accidents and 93.3% of fatal accidents occurred under good road conditions.

* 85.5% of total accidents occurred during good weather conditions, while snow and rainy conditions were reported for 9.4% of all accidents.

* 59.6% of fatal accidents occurred during daylight conditions.

* 79.6% of total accidents occurred in urban areas; however, urban areas accounted for only 30.8% of all fatal accidents.

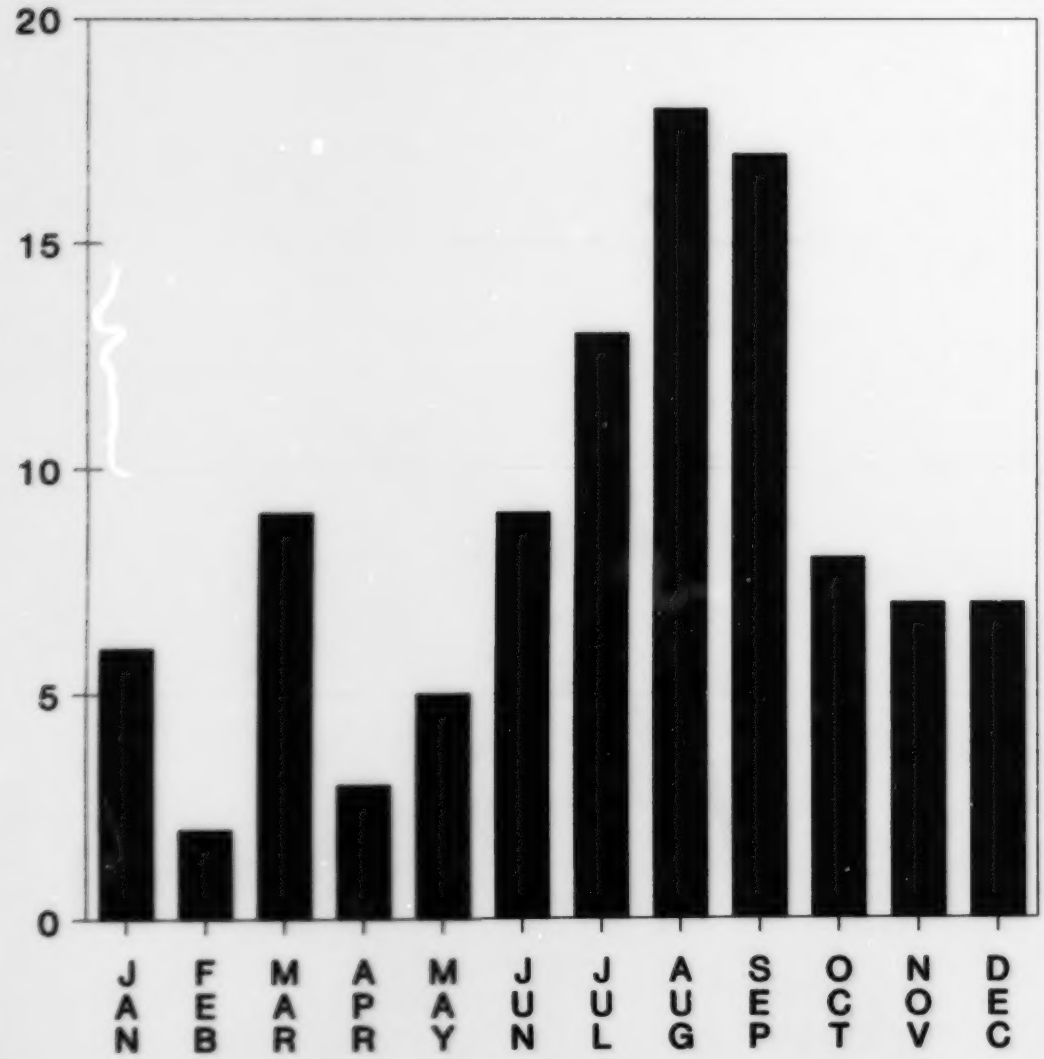
TRAFFIC ACCIDENTS
BY MONTH OF OCCURRENCE AND ACCIDENT TYPE
1990

ACCIDENT MONTH	ACCIDENT TYPE				
	FATAL	INJURY	P. DAMAGE	TOTAL	% EACH CATEGORY
JANUARY	6	819	2763	3588	9.9
FEBRUARY	2	820	2603	3425	9.4
MARCH	9	866	2506	3381	9.3
APRIL	3	544	1588	2135	5.9
MAY	5	647	1628	2280	6.3
JUNE	9	803	2114	2926	8.1
JULY	13	733	1821	2567	7.1
AUGUST	18	828	1831	2677	7.4
SEPTEMBER	17	757	1828	2602	7.2
OCTOBER	8	765	1999	2772	7.7
NOVEMBER	7	740	2442	3189	8.8
DECEMBER	7	1182	3480	4669	12.9
TOTAL	104	9504	26603	36211	100.0

GRAPHIC REPRESENTATION

FATAL ACCIDENTS BY MONTH

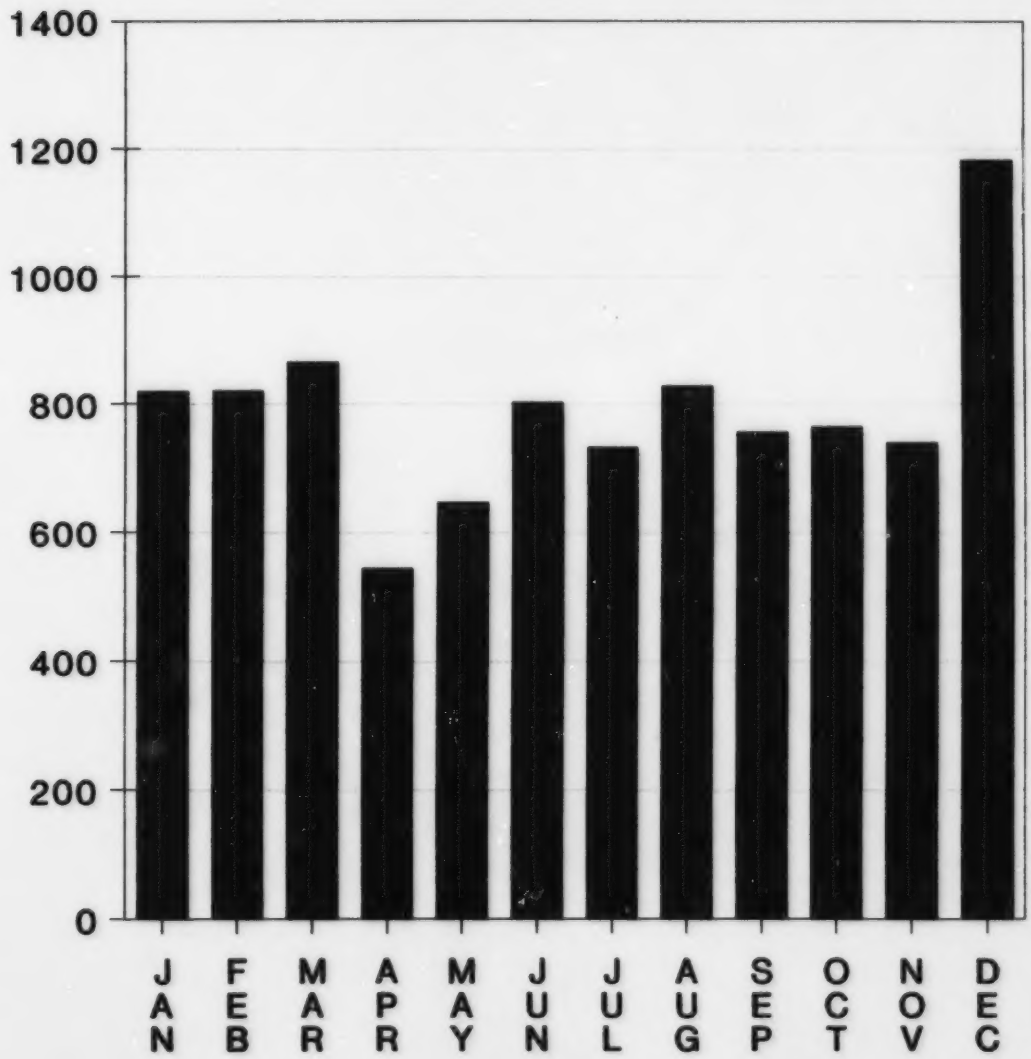
1990



GRAPHIC REPRESENATION

INJURY ACCIDENTS BY MONTH

1990



TRAFFIC ACCIDENTS
BY DAY OF OCCURRENCE AND ACCIDENT TYPE
1990

DAY OF WEEK	ACCIDENT TYPE				
	FATAL	INJURY	P. DAMAGE	TOTAL	% EACH CATEGORY
MONDAY	7	1315	3524	4846	13.3
TUESDAY	12	1290	3351	4653	12.9
WEDNESDAY	14	1353	3545	4912	13.6
THURSDAY	14	1294	3764	5072	14.0
FRIDAY	14	1548	4565	6127	16.9
SATURDAY	12	1498	4384	5894	16.3
SUNDAY	22	936	2582	3540	9.8
NOT STATED	9	270	888	1167	3.2
TOTAL	**104**	**9504**	**26603**	**36211**	**100.0**

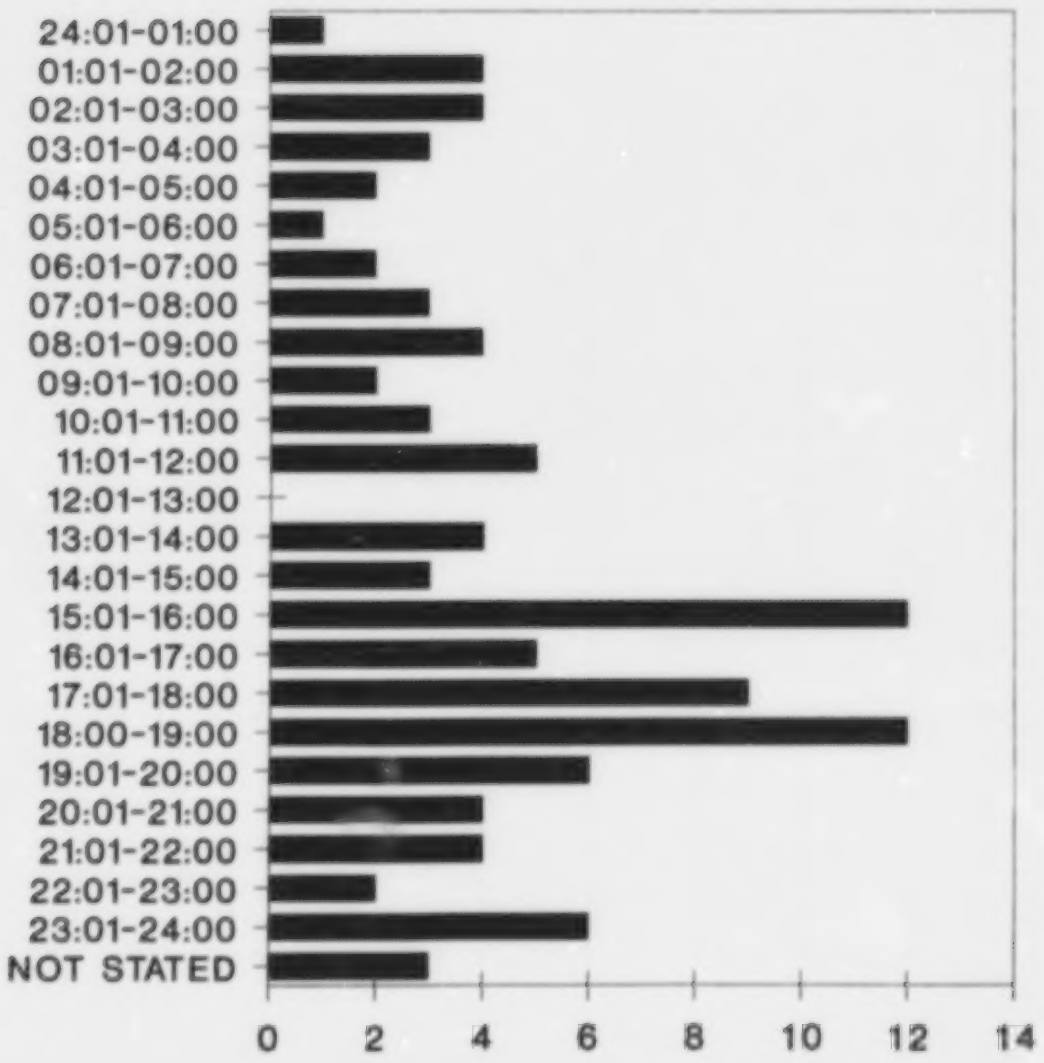
TRAFFIC ACCIDENTS
BY TIME OF OCCURRENCE AND ACCIDENT TYPE
1989

ACCIDENT HOUR	ACCIDENT TYPE				
	FATAL	INJURY	P. DAMAGE	TOTAL	% EACH CATEGORY
24:00 - 1:00	1	155	520	676	1.8
1:01 - 2:00	4	173	522	699	1.9
2:01 - 3:00	4	199	495	698	1.9
3:01 - 4:00	3	101	268	372	1.0
4:01 - 5:00	2	64	158	224	0.6
5:01 - 6:00	1	52	194	247	0.7
6:01 - 7:00	2	135	354	491	1.4
7:01 - 8:00	3	308	830	1141	3.2
8:01 - 9:00	4	442	1111	1557	4.3
9:01 - 10:00	2	313	938	1253	3.5
10:01 - 11:00	3	377	1174	1554	4.3
11:01 - 12:00	5	512	1473	1990	5.5
12:01 - 13:00	0	595	1536	2131	5.9
13:01 - 14:00	4	613	1602	2219	6.1
14:01 - 15:00	3	655	1713	2371	6.6
15:01 - 16:00	12	802	2039	2853	7.9
16:01 - 17:00	5	922	2227	3154	8.7
17:01 - 18:00	9	725	1762	2496	6.9
18:01 - 19:00	12	477	1355	1844	5.1
19:01 - 20:00	6	414	1317	1737	4.8
20:01 - 21:00	4	393	1126	1523	4.2
21:01 - 22:00	4	310	1076	1390	3.8
22:01 - 23:00	2	285	1087	1374	3.8
23:01 - 24:00	6	235	847	1088	3.0
NOT STATED	3	247	879	1129	3.1
TOTAL	104	9504	26603	36211	100.0

GRAPHIC REPRESENTATION

FATAL ACCIDENTS BY TIME

1990



TRAFFIC ACCIDENTS
BY COLLISION AND ACCIDENT TYPE
1990

COLLISION TYPE	ACCIDENT TYPE										
	URBAN			RURAL			PROVINCIAL TOTAL			ALL CATEGORIES	% EACH CATEGORY
	FATAL	INJURY	P. DAMAGE	FATAL	INJURY	P. DAMAGE	FATAL	INJURY	P. DAMAGE		
PEDESTRIAN	13	585	9	1	21	3	14	606	12	632	1.7
MOTOR VEHICLE	8	6107	18110	33	552	1145	41	6659	19255	25955	71.7
TRAIN	0	7	7	1	7	6	1	14	13	28	0.1
MOTORCYCLE	4	140	76	2	48	10	6	188	86	280	0.8
BICYCLE	2	317	21	2	12	5	4	329	26	359	1.0
ANIMAL	0	10	135	0	102	2192	0	112	2327	2439	6.7
FIXED OBJECT	3	404	2301	4	127	440	7	531	2741	3279	9.0
OTHER OBJECT	0	23	96	1	28	117	1	51	213	265	0.7
OVERTURNED IN ROADWAY	0	15	24	5	62	110	5	77	134	216	0.6
RAN OFF ROADWAY	0	109	200	22	791	1292	22	900	1492	2414	6.7
OTHER NON-COLLISION	2	19	70	1	17	234	3	36	304	343	1.0
COLLISION WITH MOPED	0	1	0	0	0	0	0	1	0	1	0.0
TOTAL	32	7737	21049	72	1767	5554	104	9504	26603	36211	100.0

TRAFFIC ACCIDENTS BY ACCIDENT SITE TYPE 1990

ACCIDENT SITE TYPE	ACCIDENT TYPE				
	FATAL	INJURY	P. DAMAGE	TOTAL	% EACH CATEGORY
INTERSECTION	33	4777	8581	13391	37.0
BETWEEN INTERSECTIONS	48	3491	10391	13930	38.5
INTERSECTION OF PRIVATE DRIVE	5	191	791	987	2.7
LANE	2	156	780	938	2.6
PARKING LOT	2	262	4008	4272	11.8
RAILROAD LEVEL CROSSING	1	25	48	74	0.2
BRIDGE/OVERPASS	2	150	291	443	1.2
TUNNEL/UNDERPASS	0	10	16	26	0.1
OFF-ROAD	6	123	270	399	1.1
NOT APPLICABLE	4	278	1263	1545	4.2
OTHER	0	6	11	17	0.1
UNKNOWN	1	35	153	189	0.5
TOTAL	104	9504	26603	36211	100.0

TRAFFIC ACCIDENTS
BY ROAD ALIGNMENT AND ACCIDENT TYPE
1990

ROAD ALIGNMENT	ACCIDENT TYPE				
	FATAL	INJURY	P. DAMAGE	TOTAL	% EACH CATEGORY
LEVEL AND STRAIGHT	78	8267	22749	31094	85.9
LEVEL AND CURVE	14	572	1314	1900	5.3
STRAIGHT WITH GRADE	5	209	698	912	2.5
CURVE WITH GRADE	3	135	339	477	1.3
TOP OF HILL	1	70	178	249	0.7
BOTTOM OF HILL	2	69	160	231	0.6
NOT APPLICABLE	0	151	1013	1164	3.2
OTHER	0	1	1	2	-.-
UNKNOWN	1	30	151	182	0.5
TOTAL	104	9504	26603	36211	100.0

TRAFFIC ACCIDENTS
BY ROAD CATEGORY AND ACCIDENT TYPE
1990

ROAD CATEGORY	ACCIDENT TYPE				
	FATAL	INJURY	P. DAMAGE	TOTAL	% EACH CATEGORY
DIVIDED	32	3793	7436	11261	31.1
UNDIVIDED	68	5325	16501	21894	60.5
RAMP	2	39	109	150	0.4
NOT APPLICABLE	1	323	2406	2730	7.5
OTHER	0	2	8	10	-.-
UNKNOWN	1	22	143	166	0.5
TOTAL	104	9504	26603	36211	100.0

TRAFFIC ACCIDENTS
BY ROAD SURFACE AND ACCIDENT TYPE
1990

ROAD SURFACE	ACCIDENT TYPE				
	FATAL	INJURY	P. DAMAGE	TOTAL	% EACH CATEGORY
ASPHALT	67	4544	12554	17165	47.4
CONCRETE	11	2621	5613	8245	22.8
GRAVEL	20	684	2968	3672	10.1
EARTH/DIRT	1	46	203	250	0.7
PAVED	5	1487	4677	6169	17.0
NOT APPLICABLE	0	107	473	580	1.6
OTHER	0	0	0	0	0.0
UNKNOWN	0	15	115	130	0.4
TOTAL	104	9504	26603	36211	100.0

TRAFFIC ACCIDENTS
BY ROAD CONDITION AND ACCIDENT TYPE
1990

ROAD CONDITION	ACCIDENT TYPE				
	FATAL	INJURY	P. DAMAGE	TOTAL	% EACH CATEGORY
GOOD	97	8975	24802	33874	93.5
DEFECTIVE	4	90	257	351	1.0
UNDER REPAIR	0	36	91	127	0.3
UNDER CONSTRUCTION	1	86	169	256	0.7
OBSTRUCTION NOT LIGHTED	0	8	27	35	0.1
HOLE/RUT/BUMP	2	167	581	750	2.1
PAVEMENT DROP OFF	0	3	10	13	-.-
NOT APPLICABLE	0	119	553	672	1.9
OTHER	0	0	0	0	0.0
UNKNOWN	0	20	113	133	0.4
TOTAL	104	9504	26603	36211	100.0

TRAFFIC ACCIDENTS
BY ROAD SURFACE CONDITION AND ACCIDENT TYPE
1990

ROAD SURFACE CONDITION	ACCIDENT TYPE				
	FATAL	INJURY	P. DAMAGE	TOTAL	% EACH CATEGORY
DRY	76	5414	13893	19383	53.5
WET	10	1033	2282	3325	9.2
MUD	0	16	57	73	0.2
SNOW	4	724	2810	3538	9.8
ICE	9	1870	6291	8170	22.6
SLUSH	3	160	318	481	1.3
LOOSE SAND/GRAVEL/DIRT	1	151	320	472	1.3
FRESH OIL	0	1	6	7	-.-
NOT APPLICABLE	0	109	492	601	1.7
OTHER	0	1	2	3	-.-
UNKNOWN	1	25	132	158	0.4
TOTAL	104	9504	26603	36211	100.0

TRAFFIC ACCIDENTS
BY LIGHT CONDITION AND ACCIDENT TYPE
1990

LIGHT CONDITION	ACCIDENT TYPE				
	FATAL	INJURY	P. DAMAGE	TOTAL	% EACH CATEGORY
DAY	62	6668	16934	23664	65.4
DAWN	4	144	394	542	1.5
DUSK	3	377	1174	1554	4.3
DARK	29	1475	5529	7033	19.4
ARTIFICIAL LIGHTING	4	735	1973	2712	7.5
NOT APPLICABLE	0	91	468	559	1.5
OTHER	0	0	0	0	0.0
UNKNOWN	2	14	131	147	0.4
TOTAL	104	9504	26603	36211	100.0

TRAFFIC ACCIDENTS
BY WEATHER CONDITION AND ACCIDENT TYPE
1990

WEATHER CONDITION	ACCIDENT TYPE				
	FATAL	INJURY	P. DAMAGE	TOTAL	% EACH CATEGORY
CLEAR	71	6688	18682	25441	70.2
CLOUDY	19	1525	3987	5531	15.3
RAINING	2	418	962	1382	3.8
SNOWING	6	485	1546	2037	5.6
FOG OR MIST	2	49	132	183	0.5
SMOKE OR DUST	0	12	21	33	0.1
FREEZING RAIN/SLEET/HAIL	0	51	131	182	0.5
DRIFTING SNOW	1	95	296	392	1.1
STRONG WINDS	0	51	137	188	0.5
NOT APPLICABLE	2	109	561	672	1.9
OTHER	0	0	1	1	-.-
UNKNOWN	1	21	147	169	0.5
TOTAL	104	9504	26603	36211	100.0

TRAFFIC ACCIDENTS
BY PLACE OF OCCURRENCE AND ACCIDENT TYPE
1990

PLACE OF OCCURRENCE	ACCIDENT TYPE				
	FATAL	INJURY	P. DAMAGE	TOTAL	% EACH CATEGORY
URBAN					
REGIONAL STREETS (WINNIPEG)	25	6814	15238	22077	76.6
URBAN 10,000 & UP (EXCLUSIVE OF WPG)	0	397	2341	2738	9.5
OTHER URBAN	7	526	3470	4003	13.9
TOTAL	32	7737	21049	28818	100.0
RURAL					
PRIMARY HIGHWAY	44	886	2504	3434	46.5
SECONDARY HIGHWAY	17	371	1186	1574	21.3
LOCAL/OTHER ROADS	11	510	1864	2385	32.2
TOTAL	72	1767	5554	7393	100.0
PROVINCIAL TOTAL	104	9504	26603	36211	100.0

TRAFFIC ACCIDENTS
BY EIGHT MOST POPULATED MANITOBA CITIES AND ACCIDENT TYPE
1990

ACCIDENT LOCATION	ACCIDENT TYPE				
	FATAL	INJURY	P. DAMAGE	TOTAL	% EACH CATEGORY
WINNIPEG	25	6814	15238	22077	61.0
BRANDON	0	268	1344	1612	4.5
PORTAGE LA PRAIRIE	0	53	375	428	1.2
FLIN FLON	0	22	275	297	0.8
DAUPHIN	1	38	261	300	0.8
THOMPSON	0	76	622	698	1.9
THE PAS	0	35	263	298	0.8
SELKIRK	0	58	219	277	0.8
OTHER URBAN	6	373	2452	2831	7.8
ALL RURAL	72	1767	5554	7393	20.4
TOTAL	104	9504	26603	36211	100.0

SECTION 5

TRAFFIC ACCIDENT VICTIMS

1990

SYNOPSIS

* Fatal accident victims decreased by 21.9% from 155 in 1989 to 121 in 1990. Injury victims increased by 1.0%, from 13320 to 13450. This decrease appears to be due to greater safety awareness.

* The number of vehicle occupant fatal victims decreased by 27.8% in 1990, to 91 from the previous year total of 126.

* Of 91 fatal vehicle occupant victims, 40 or 44.0% were known not to be wearing an available safety device. Seat belt usage was unknown for a further 16.5 percent.

* A total of 23 , or 25.3% of fatally injured vehicle occupants were ejected from their vehicles. Three victims (3.3%) were partially ejected.

* Four months - August and September, July and March (in descending order) accounted for 57.0% of all victims fatally injured in traffic accidents.

* 43.8% of fatal victims were killed between the hours of 3 p.m. - 8 p.m.; 45.1% of non-fatal traffic accident victims were injured between the hours of twelve noon to 6 p.m.

- Rural roadways accounted for 72.7% of fatal victims, but only 21.9% of injury victims.

- The age group 15 - 34 accounted for 43.0% of fatal victims, and 52.7% of total injury victims.

- Total motorcycle victims numbered 236, a decrease of 8.2% from the previous year.

- Of the total 121 fatal accident victims in 1990, 80.2% were vehicle occupants, 11.5% pedestrians, 5.0% motorcyclists and 3.3% bicyclists.

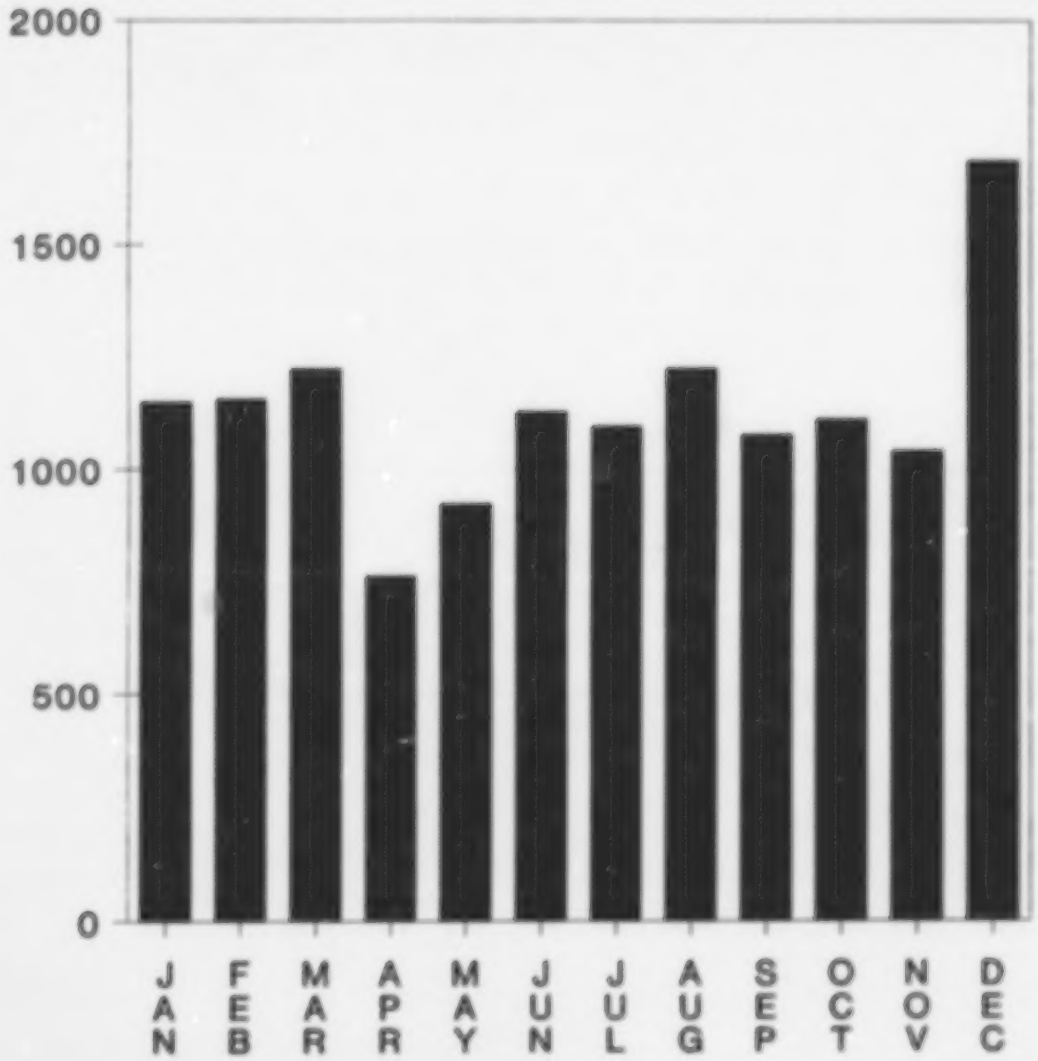
TRAFFIC ACCIDENT VICTIMS
BY MONTH OF OCCURRENCE AND INJURY TYPE
1990

ACCIDENT MONTH	INJURY TYPE			
	KILLED	INJURED	TOTAL	% EACH CATEGORY
JANUARY	7	1141	1148	8.4
FEBRUARY	2	1152	1154	8.5
MARCH	14	1209	1223	9.0
APRIL	4	757	761	5.6
MAY	5	918	923	6.8
JUNE	10	1117	1127	8.3
JULY	15	1080	1095	8.1
AUGUST	21	1203	1224	9.0
SEPTEMBER	19	1057	1076	7.9
OCTOBER	9	1101	1110	8.2
NOVEMBER	7	1034	1041	7.7
DECEMBER	8	1681	1689	12.5
TOTAL	121	13450	13571	100.0

GRAPHIC REPRESENTATION

FATAL & INJURED VICTIMS BY MONTH

1990



TRAFFIC ACCIDENT VICTIMS
BY HOUR OF OCCURRENCE AND ACCIDENT TYPE
1990

ACCIDENT HOUR	INJURY TYPE			
	KILLED	INJURED	TOTAL	% EACH CATEGORY
24:00 - 1:00	1	221	222	1.6
1:01 - 2:00	5	268	273	2.0
2:01 - 3:00	4	298	302	2.2
3:01 - 4:00	3	145	148	1.1
4:01 - 5:00	3	98	101	0.7
5:01 - 6:00	1	80	81	0.6
6:01 - 7:00	2	181	183	1.3
7:01 - 8:00	4	390	394	2.9
8:01 - 9:00	4	591	595	4.4
9:01 - 10:00	4	450	454	3.4
10:01 - 11:00	3	521	524	3.9
11:01 - 12:00	8	701	709	5.2
12:01 - 13:00	0	826	826	6.1
13:01 - 14:00	4	903	907	6.7
14:01 - 15:00	3	934	937	6.9
15:01 - 16:00	15	1107	1122	8.3
16:01 - 17:00	5	1298	1303	9.6
17:01 - 18:00	9	994	1003	7.4
18:01 - 19:00	14	701	715	5.3
19:01 - 20:00	10	590	600	4.4
20:01 - 21:00	4	581	585	4.3
21:01 - 22:00	4	455	459	3.4
22:01 - 23:00	2	416	418	3.1
23:01 - 24:00	6	361	367	2.7
NOT STATED	3	340	343	2.5
TOTAL	121	13450	13571	100.0

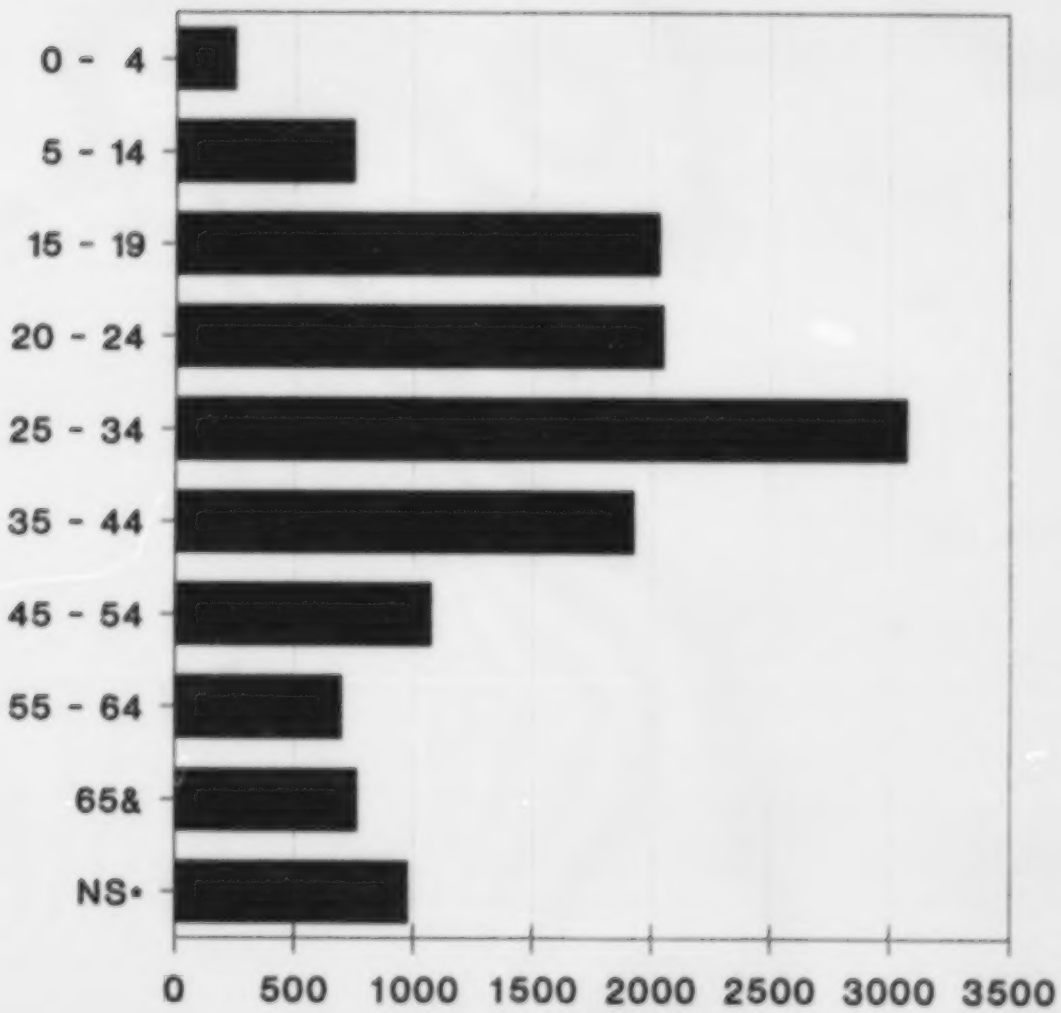
TRAFFIC ACCIDENT VICTIMS
BY AGE GROUP AND INJURY TYPE
1990

AGE GROUP	INJURY TYPE							
	KILLED				INJURED			
	MALE	FEMALE	N.S.	TOTAL	MALE	FEMALE	N.S.	TOTAL
0 - 4	2	2	0	4	136	106	1	243
5 - 9	1	2	0	3	182	160	0	342
10 - 14	2	0	0	2	207	191	0	398
15 - 19	13	4	0	17	1033	980	0	2013
20 - 24	9	4	0	13	1048	986	0	2034
25 - 34	19	3	0	22	1590	1457	0	3047
35 - 44	11	9	0	20	896	1007	0	1903
45 - 54	2	4	0	6	479	587	0	1066
55 - 64	4	2	0	6	338	355	0	693
65+	17	11	0	28	343	392	0	735
AGE NOT STATED	0	0	0	0	485	490	1	976
TOTAL	80	41	0	121	6737	6711	2	13450

GRAPHIC REPRESENTATION

FATAL & INJURED VICTIMS BY AGE GROUP

1990



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* Not stated on accident report

TRAFFIC ACCIDENT VICTIMS
BY AGE GROUP AND COLLISION TYPE
1980

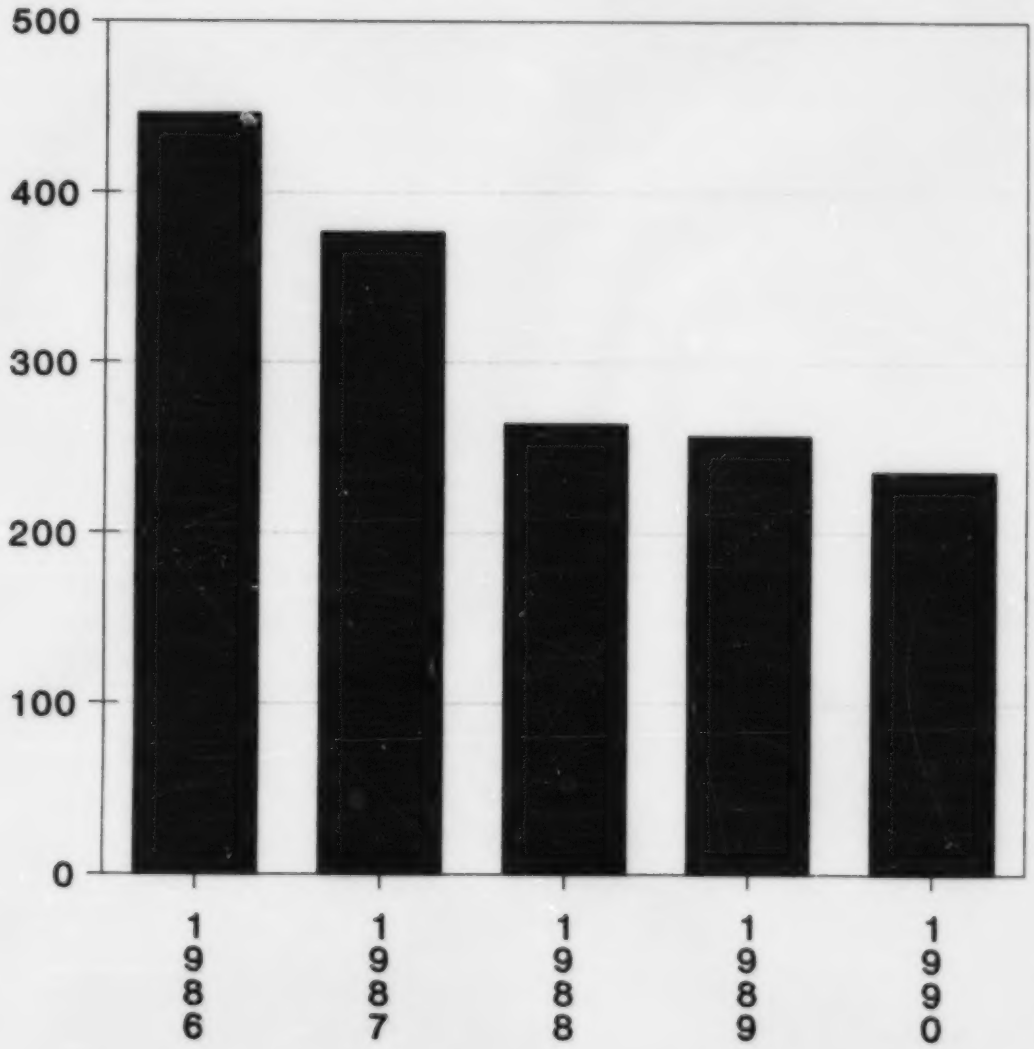
AGE GROUP	COLLISION TYPE																									
	PEDESTRIAN		MOTOR VEHICLE		TRAIN		MOTOR CYCLE		BICYCLE		ANIMAL		FIXED OBJECT		OTHER OBJECT		OVER TURNED		RAN OFF ROADWAY		OTHER NON-COLLISION		MOPED		TOTAL	
	K	I	K	I	K	I	K	I	K	I	K	I	K	I	K	I	K	I	K	I	K	I	K	I	K	I
0 - 4	0	38	2	155	0	0	0	0	0	5	0	1	0	8	0	3	0	3	2	29	0	1	0	0	4	243
5 - 9	1	75	0	198	0	0	0	1	1	42	0	4	1	1	0	1	0	2	0	16	0	2	0	0	3	342
10 - 14	0	71	1	208	0	0	0	2	1	50	0	4	0	15	0	6	0	4	0	35	0	3	0	0	2	398
15 - 19	1	80	7	1164	0	3	1	55	0	52	0	18	1	183	0	18	2	29	3	399	2	12	0	0	17	2013
20 - 24	0	49	4	1443	0	4	0	55	0	49	0	23	2	152	1	11	1	19	5	225	0	4	0	0	13	2034
25 - 34	2	75	13	2348	0	0	3	70	0	53	0	42	1	150	0	13	2	18	1	272	0	5	0	1	22	3047
35 - 44	1	42	10	1558	0	3	1	26	1	20	0	23	1	65	0	5	0	18	5	138	1	4	0	1	20	1903
45 - 54	0	40	3	870	0	3	1	6	0	7	0	12	1	32	0	3	0	9	1	77	0	7	0	0	6	1066
55 - 64	2	22	3	573	1	0	0	2	0	7	0	7	0	25	0	2	0	5	0	49	0	1	0	0	6	693
65+	7	60	13	556	0	1	0	3	1	6	0	6	1	28	0	4	0	5	6	59	0	7	0	0	28	735
AGE NOT STATED	0	97	0	689	0	1	0	10	0	50	0	3	0	55	0	5	0	2	0	59	0	5	0	0	0	976
TOTAL	14	649	56	9762	1	15	6	230	4	341	0	143	8	714	1	71	5	114	23	1358	3	51	0	2	121	13650

* LEGEND K (Killed)
I (Injured)

GRAPHIC REPRESENTATION

FATAL & INJURED MOTORCYCLE VICTIMS

1986 - 1990



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TRAFFIC ACCIDENT VICTIMS
BY PLACE OF OCCURRENCE AND INJURY TYPE
1990

PLACE OF OCCURRENCE	INJURY TYPE			
	KILLED	INJURED	TOTAL	% EACH CATEGORY
URBAN				
REGIONAL STREETS (WINNIPEG)	26	9180	9206	87.4
URBAN 10,000 & UP (EXCLUSIVE OF WPG)	0	570	570	5.4
OTHER URBAN	7	749	756	7.2
TOTAL	**33**	**10499**	**10532**	**100.0**
RURAL				
PRIMARY HIGHWAY	56	1540	1596	52.5
SECONDARY HIGHWAY	20	608	628	20.7
LOCAL/OTHER ROADS	12	803	815	26.8
TOTAL	**88**	**2951**	**3039**	**100.0**
PROVINCIAL TOTAL	**121**	**13450**	**13571**	**100.0**

TRAFFIC ACCIDENT VICTIMS
BY EIGHT MOST POPULATED MANITOBA CENTRES
1990

ACCIDENT LOCATION	INJURY TYPE			
	KILLED	INJURED	TOTAL	% EACH CATEGORY
WINNIPEG	26	9180	9206	67.8
BRANDON	0	388	388	2.9
PORTAGE LA PRAIRIE	0	63	63	0.5
FLIN FLON	0	29	29	0.2
DAUPHIN	1	50	51	0.4
THOMPSON	0	119	119	0.9
THE PAS	0	44	44	0.3
SELKIRK	0	84	84	0.6
OTHER URBAN	6	542	548	4.0
ALL RURAL	88	2951	3039	22.4
TOTAL	121	13450	13571	100.0

TRAFFIC ACCIDENT VICTIMS
BY SAFETY EQUIPMENT AND INJURY SEVERITY
1990

SAFETY EQUIPMENT	INJURY SEVERITY					
	MINIMAL*	MINOR*	MAJOR*	FATAL*	NOT STATED**	TOTAL
LAP BELT ONLY INSTALLED AND IN USE	502	537	53	3	53	1148
LAP BELT ONLY INSTALLED AND NOT IN USE	92	168	32	5	12	309
SHOULDER BELT ONLY INSTALLED AND IN USE	165	147	17	2	12	343
SHOULDER BELT ONLY INSTALLED AND NOT IN USE	31	36	18	1	5	91
LAP AND SHOULDER BELT ASSEMBLY IN USE	4238	2855	326	29	720	8168
COMBINED BELT INSTALLED BUT NOT IN USE	156	341	148	34	25	704
ONLY LAP PART OF FULL ASSEMBLY IN USE	21	21	4	1	3	50
AIR BAG DEPLOYED	3	1	0	0	0	4
CHILD SAFETY SEAT USED	35	40	5	0	3	83
CHILD SAFETY SEAT INSTALLED BUT NOT USED	1	2	0	0	1	4
SAFETY HELMET WORN	42	93	44	2	9	190
SAFETY HELMET NOT WORN	8	26	11	3	2	50
REFLECTIVE CLOTHING OR ITEM ON PEDESTRIAN	0	0	1	0	0	1
NO SAFETY DEVICE AVAILABLE	53	145	31	4	5	238
NOT APPLICABLE	205	102	30	3	8	348
OTHER	0	0	0	0	0	0
UNKNOWN	381	707	201	34	517	1840
TOTAL	5933	5221	921	121	1375	13571

* MINIMAL INJURY - NO HOSPITAL TREATMENT
* MINOR INJURY - TREATED AND RELEASED
* MAJOR INJURY - ADMITTED TO HOSPITAL
* FATAL INJURY - DEATH WITHIN 30 DAYS OF ACCIDENT
** NOT STATED

FATAL VEHICLE OCCUPANT VICTIMS* BY SAFETY EQUIPMENT AND EJECTION 1990

SAFETY EQUIPMENT	VICTIMS	% OF TOTAL	NUMBER OF EJECTIONS	
LAP BELT ONLY INSTALLED AND IN USE	3	3.3	1E	
LAP BELT ONLY INSTALLED AND NOT IN USE	5	5.5	2E	
SHOULDER BELT ONLY INSTALLED AND IN USE	2	2.2		
SHOULDER BELT ONLY INSTALLED AND NOT IN USE	1	1.1		
LAP AND SHOULDER BELT ASSEMBLY IN USE	29	31.9	1E	1PE
COMBINED ASSEMBLY INSTALLED BUT NOT IN USE	34	37.3	16E	2PE
ONLY LAP PART OF FULL ASSEMBLY IN USE	1	1.1		
NO SAFETY DEVICE AVAILABLE	1	1.1	1E	
UNKNOWN	15	16.5	2E	
TOTAL	91	100.0	23E	3PE

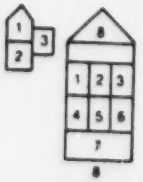
* THE VEHICLE OCCUPANT CATEGORY EXCLUDES PEDESTRIANS, MOTORCYCLISTS AND BICYCLISTS.

LEGEND:

PE - PARTIALLY EJECTED
E - EJECTED

TRAFFIC ACCIDENT VICTIMS
BY POSITION IN VEHICLE AND INJURY SEVERITY
1990

POSITION IN VEHICLE	MINIMAL	MINOR	MAJOR	FATAL	NOT STATED	TOTAL	% EACH CATEGORY
DRIVER OF VEHICLE	4066	3058	502	65	914	8605	63.4
PASSENGER (POSITION #2)	240	265	43	5	94	647	4.7
PASSENGER (POSITION #3)	1109	1062	167	19	208	2565	18.9
PASSENGER (POSITION #4)	158	185	27	6	32	408	3.0
PASSENGER (POSITION #5)	55	81	23	3	8	170	1.3
PASSENGER (POSITION #6)	188	205	36	6	23	458	3.4
PASSENGER (POSITION #7)	3	28	9	0	2	42	0.3
RIDER/HANGER ON	2	6	1	3	0	12	0.1
PEDESTRIAN	112	331	113	14	94	664	4.9
NOT STATED	0	0	0	0	0	0	0.0
TOTAL	**5933**	**5221**	**921**	**121**	**1375**	**13571**	**100.0**



POSITION ON/ IN VEHICLE
1 Driver
2-7 Passenger
8 Riding or Hanging on
9 Pedestrian

SECTION 6

PEDESTRIAN ACCIDENT VICTIMS

1990

SYNOPSIS

- Fatal pedestrian accident victims decreased by five in 1990, a 26.3% decrease from the 1989 total of 19.

- 41.1% of pedestrian victims killed or injured in traffic accidents were crossing the roadway between intersections. However, the number of pedestrians killed while crossing between intersections decreased from 12 in 1989 to 4 in 1990.

- Urban roadways accounted for 92.9% of the 14 pedestrian accident victims killed, and 95.7% of the 650 pedestrians injured in 1990.

PEDESTRIAN ACCIDENT VICTIMS
BY PEDESTRIAN ACTION AND INJURY TYPE
1990

PEDESTRIAN ACTION	INJURY TYPE			
	KILLED	INJURED	TOTAL	% EACH CATEGORY
CROSSING WITH SIGNAL	1	81	82	12.4
CROSSING AGAINST SIGNAL	0	59	59	8.9
CROSSING NO SIGNAL, MARKED X-WALK	1	23	24	3.6
CROSSING NO SIGNAL OR CROSSWALK	3	55	58	8.7
CROSSING BETWEEN INTERSECTIONS	0	121	121	18.2
WALK ON/ALONG ROAD WITH TRAFFIC	1	19	20	3.0
WALK ON ROAD AGAINST TRAFFIC	0	7	7	1.0
ON SIDEWALK/SHOULDER/MEDIAN	1	22	23	3.5
WALKING ON BRIDGE	0	0	0	0.0
EMERGE FROM BEHIND PARKED VEHICLE	0	51	51	7.7
EMERGE FROM BEHIND MOVING VEHICLE	0	8	8	1.2
GETTING ON/OFF SCHOOL BUS	0	1	1	0.1
GETTING ON/OFF OTHER VEHICLE	0	4	4	0.6
PUSHING/WORKING ON VEHICLE	0	5	5	0.8
RIDING OR HITCHING ON VEHICLE	0	7	7	1.1
PLAYING/AT WORK ON ROADWAY	0	19	19	2.9
HITCH-HIKING ON/ALONG ROADWAY	0	1	1	0.1
NOT APPLICABLE	0	0	0	0.0
OTHER	0	0	0	0.0
UNKNOWN	7	167	174	26.2
TOTAL	14	650	664	100.0

PEDESTRIAN ACCIDENT VICTIMS
BY PLACE OF OCCURRENCE AND INJURY TYPE
1990

PLACE OF OCCURRENCE	INJURY TYPE			
	KILLED	INJURED	TOTAL	% EACH CATEGORY
URBAN	13	622	635	95.6
RURAL	1	28	29	4.4
TOTAL	14	650	664	100.0

PEDESTRIAN ACCIDENT VICTIMS BY ACCIDENT SITE TYPE AND INJURY TYPE 1990

ACCIDENT SITE TYPE	INJURY TYPE			
	KILLED	INJURED	TOTAL	% EACH CATEGORY
INTERSECTION	9	262	271	40.8
BETWEEN INTERSECTIONS	4	269	273	41.1
INTERSECTION OF PRIVATE DRIVE	0	9	9	1.4
LANE	0	18	18	2.7
PARKING LOT	0	63	63	9.5
RAILROAD LEVEL CROSSING	0	0	0	0.0
BRIDGE/OVERPASS	0	2	2	0.3
TUNNEL/UNDERPASS	0	0	0	0.0
OFF-ROAD	0	5	5	0.8
NOT APPLICABLE	0	22	22	3.3
OTHER	0	0	0	0.0
UNKNOWN	1	0	1	0.1
TOTAL	14	650	664	100.0

SECTION 7

VEHICLE INVOLVEMENT

1990

SYNOPSIS

- Vehicles involved in traffic accidents in 1990 numbered 62737, a 6.6% decrease from the 1989 total of 67188.

- 73.9% of vehicles involved in traffic accidents in 1990 were passenger vehicles.

- The primary damage location on vehicles in accidents were vehicle front, at 23.9%, vehicle rear (including trunk) at 11.9% and extensive (including several areas) at 10.0 percent.

- Only 0.6% of total vehicles involved in accidents were carrying hazardous loads.

- 52.9% of total vehicles were moving straight ahead when accident involvement occurred, 8.6% were parked, 10.5% were stopped in traffic and 8.3% were making a left-hand turn.

- In fixed object accidents, 30.2% of total vehicles involved collided with a ditch/slope, 11.2% with curbing and 7.5% with a telephone or power pole.

- In non-collision event accidents, 52.2% of total vehicles involved ran off the roadway, 27.8% went into a skid or slide and 9.8% were fire related.

VEHICLE INVOLVEMENT IN TRAFFIC ACCIDENTS BY VEHICLE TYPE AND ACCIDENT TYPE 1990

VEHICLE TYPE	ACCIDENT TYPE				
	FATAL	INJURY	P. DAMAGE	TOTAL	% EACH CATEGORY
AUTOMOBILE	84	13359	32887	46330	73.9
MOTORCYCLE	6	217	96	319	0.5
BICYCLE	5	345	20	370	0.6
MOPED	0	7	10	17	-.-
SCHOOL BUS	0	17	77	94	0.2
TRANSIT BUS	1	62	144	207	0.3
INTER-CITY BUS	0	4	4	8	-.-
BUS (OTHER)	1	15	43	59	0.1
PICK-UP OR VAN UNDER 5,000 KG	39	2973	9903	12915	20.6
TRUCK OVER 5,000 KG	5	207	659	871	1.4
TRACTOR AND SEMI-TRAILER	14	140	488	642	1.0
MOTORHOME	0	27	101	128	0.2
TRUCK/CAMPER	0	8	25	33	0.1
TRUCK (OTHER)	3	104	362	469	0.8
FARM EQUIPMENT	1	8	36	45	0.1
CONSTRUCTION EQUIPMENT	0	23	95	118	0.2
SNOWMOBILE (ORVA)	0	18	7	25	-.-
SNOW VEHICLE (HTA)	0	2	3	5	-.-
TRAIN/OTHER RAIL VEHICLE	0	0	0	0	0.0
AMBULANCE	0	6	8	14	-.-
FIRE	1	2	11	14	-.-
POLICE/R.C.M.P.	0	11	21	32	-.-
MOBILITY	0	1	2	3	-.-
OFF-ROAD VEHICLE	0	7	0	7	-.-
ALL-TERRAIN VEHICLE	2	7	2	11	-.-
AMPHIBIOUS VEHICLE	0	0	0	0	-.-
DUNE OR SPORT BUGGY	0	0	0	0	0.0
4-WHEEL DRIVE MOTOR VEHICLE	0	1	0	1	-.-
TOTAL	162	17571	45004	62737	100.0

VEHICLE INVOLVEMENT IN TRAFFIC ACCIDENTS BY VEHICLE YEAR AND ACCIDENT TYPE 1990

VEHICLE YEAR	ACCIDENT TYPE				
	FATAL	INJURY	P. DAMAGE	TOTAL	% EACH CATEGORY
1991	0	38	134	172	0.3
1990	8	664	2052	2724	4.3
1989	18	1203	3541	4762	7.6
1988	11	1400	4037	5448	8.7
1987	13	1318	3710	5041	8.0
1986	8	1620	4452	6080	9.7
1985	16	1361	3648	5025	8.0
1984	13	1337	3410	4760	7.6
1983	6	857	2208	3071	4.9
1982 AND OLDER	63	6923	16287	23273	37.1
NOT STATED	6	850	1525	2381	3.8
TOTAL	162	17571	45004	62737	100.0

VEHICLE INVOLVEMENT IN TRAFFIC ACCIDENTS BY TRAFFIC CONTROL AND ACCIDENT TYPE 1990

TRAFFIC CONTROL	ACCIDENT TYPE				
	FATAL	INJURY	P. DAMAGE	TOTAL	% EACH CATEGORY
TRAFFIC SIGNAL/CONTROL	19	5008	7278	12305	19.6
STOP	9	1113	2446	3568	5.7
RIGHT TURN ON RED	0	9	11	20	-.-
LEFT TURN ON RED	0	7	6	13	-.-
YIELD	0	411	706	1117	1.8
OFFICER/FLAGMAN	0	22	35	57	0.1
MERGE	0	41	73	114	0.2
FOUR-WAY STOP	0	77	128	205	0.3
TURN CONTROLS	0	8	18	26	0.1
FLASHING TURN SIGNAL	0	18	19	37	0.1
OVERHEAD SIGNS	0	6	6	12	-.-
RAILWAY GATES	0	10	17	27	0.1
RAILWAY AUTO CONTROLS	0	17	12	29	0.1
RAILWAY CROSSING	1	38	50	89	0.1
SCHOOL ZONE	0	12	14	26	-.-
WARNING SIGN	4	19	42	65	0.1
PEDESTRIAN CROSSWALK	2	163	149	314	0.5
PEDESTRIAN CORRIDOR	0	146	103	249	0.4
SCHOOL CROSSING	0	4	1	5	-.-
FLASHING SCHOOL SIGNALS	0	1	7	8	-.-
NOT APPLICABLE	117	10009	32733	42859	68.3
OTHER	0	0	3	3	-.-
UNKNOWN	10	432	1147	1589	2.5
TOTAL	**162**	**17571**	**45004**	**62737**	**100.0**

VEHICLE INVOLVEMENT IN TRAFFIC ACCIDENTS BY PRE-COLLISION ACTION AND ACCIDENT TYPE 1990

PRE-COLLISION ACTION	ACCIDENT TYPE				
	FATAL	INJURY	P. DAMAGE	TOTAL	% EACH CATEGORY
GOING STRAIGHT AHEAD	139	10420	22648	33207	52.9
TURNING LEFT	7	1498	3642	5147	8.3
TURNING RIGHT	3	507	1648	2158	3.4
MAKING U-TURN	0	42	138	180	0.3
CHANGING LANES TO LEFT	1	154	532	687	1.1
CHANGING LANES TO RIGHT	1	138	538	677	1.1
MERGING	0	116	218	334	0.5
REVERSING	1	177	2671	2849	4.5
OVERTAKING	1	80	242	323	0.5
STOPPED IN TRAFFIC	1	2872	3736	6609	10.5
START FROM PARKED POSITION/LEAVE ROAD	1	90	451	542	0.9
ENTER PARKED POSITION/ STOP ON ROAD	0	44	272	316	0.5
PARKED	1	343	5030	5374	8.6
SWERVING	3	170	504	677	1.1
NOT APPLICABLE	2	911	2682	3595	5.7
OTHER	0	0	3	3	-.-
UNKNOWN	1	9	49	59	0.1
TOTAL	162	17571	45004	62737	100.0

VEHICLE INVOLVEMENT IN TRAFFIC ACCIDENTS BY VEHICLE DAMAGE LOCATION AND ACCIDENT TYPE 1990

VEHICLE DAMAGE LOCATION	ACCIDENT TYPE				
	FATAL	INJURY	P. DAMAGE	TOTAL	% EACH CATEGORY
FRONT	41	4786	10185	15012	23.9
ENGINE HOOD	1	39	106	146	0.2
WINDSHIELD	1	47	59	107	0.2
ROOF	1	40	137	178	0.3
REAR, INCLUDING TRUNK	2	2969	4503	7474	11.9
LEFT FRONT FENDER	3	935	4489	5427	8.7
LEFT DOOR(S)	1	370	1752	2123	3.4
LEFT REAR FENDER	0	407	2494	2901	4.6
ENTIRE LEFT SIDE	6	326	1114	1446	2.3
RIGHT FRONT FENDER	2	795	3678	4475	7.1
RIGHT DOOR(S)	0	268	1466	1734	2.8
RIGHT REAR FENDER	1	403	2298	2702	4.4
ENTIRE RIGHT SIDE	3	357	978	1338	2.1
UNDERCARRIAGE	1	53	359	413	0.7
INTERIOR	0	6	18	24	-.-
EXTENSIVE (SEVERAL AREAS)	80	2527	3670	6277	10.0
NOT APPLICABLE	19	3196	7581	10796	17.2
OTHER	0	4	7	11	-.-
UNKNOWN	0	43	110	153	0.2
TOTAL	**162**	**17571**	**45004**	**62737**	**100.0**

VEHICLE INVOLVEMENT IN TRAFFIC ACCIDENTS BY HAZARDOUS LOAD AND ACCIDENT TYPE 1990

HAZARDOUS LOAD	ACCIDENT TYPE				
	FATAL	INJURY	P. DAMAGE	TOTAL	% EACH CATEGORY
EXPLOSIVES	0	78	298	376	0.6
FLAMMABLE GASES	1	4	12	17	-.-
FLAMMABLE AND CONBUSTIBLE LIQUIDS	0	6	11	17	-.-
FLAMMABLE SOLID/ DANGEROUS WHEN WET	0	0	1	1	-.-
OXIDIZERS AND ORGANIC PEROXIDES	0	0	0	0	0.0
POISONOUS SUBSTANCES/ INFECTIOUS	0	1	3	4	-.-
RADIOACTIVES	0	0	0	0	0.0
CORROSIVES	0	1	2	3	-.-
MISCELLANEOUS DANGEROUS SUBSTANCES	0	1	6	7	-.-
GENERAL CARGO NON-HAZARDOUS	0	5	11	16	-.-
EMPTY	0	1	1	2	-.-
NOT APPLICABLE	160	17444	44565	62169	99.2
OTHER	0	0	0	0	0.0
UNKNOWN	1	30	94	125	0.2
TOTAL	**162**	**17571**	**45004**	**62737**	**100.0**

VEHICLE INVOLVEMENT IN TRAFFIC ACCIDENTS
SEQUENCE OF EVENTS BY ACCIDENT TYPE
1990

SEQUENCE OF EVENTS/ COLLISION WITH:	ACCIDENT TYPE FATAL	INJURY	P. DAMAGE	TOTAL	% EACH CATEGORY
FIXED OBJECT	23	1023	3225	4271	6.8
MOVEABLE OBJECT	105	15157	39730	54992	87.7
NON-COLLISION EVENT	17	634	1298	1949	3.1
NOT APPLICABLE	15	634	114	763	1.2
OTHER	2	123	637	762	1.2
UNKNOWN	0	0	0	0	0.0
TOTAL	162	17571	45004	62737	100.0

VEHICLE INVOLVEMENT IN TRAFFIC ACCIDENTS INVOLVING FIXED OBJECTS BY ACCIDENT TYPE 1990

FIXED OBJECT	ACCIDENT TYPE				
	FATAL	INJURY	P. DAMAGE	TOTAL	% EACH CATEGORY
DITCH BOTTOM/SLOPE	12	483	793	1288	30.2
APPROACH	1	16	37	54	1.3
TRAFFIC BARRICADE	0	8	62	70	1.6
SIGN POST	4	24	243	271	6.3
TRAFFIC SIGNAL STANDARD	0	26	85	111	2.6
STREET LIGHT STANDARD	0	64	224	288	6.7
TELEPHONE/POWER POLE	0	67	252	319	7.5
GUARD RAIL	0	33	132	165	3.9
BRIDGE STRUCTURE	2	30	91	123	2.9
TREE/BUSH	2	68	223	293	6.9
PARKING METER	0	2	4	6	0.1
BUILDING/WALL	2	19	260	281	6.6
CURBING	0	98	382	480	11.2
FENCE	0	24	137	161	3.8
CULVERT	0	6	15	21	0.5
SNOW EMBANKMENT/DRIFT	0	33	168	201	4.7
ROCK CUT	0	5	13	18	0.4
DELINEATOR POSTS	0	0	14	14	0.3
FIRE HYDRANTS	0	2	43	45	1.0
MEDIAN BARRIER	0	15	47	62	1.5
TOTAL	**23**	**1023**	**3225**	**4271**	**100.0**

VEHICLE INVOLVEMENT IN TRAFFIC ACCIDENTS INVOLVING MOVEABLE OBJECT BY ACCIDENT TYPE 1990

MOVEABLE OBJECT	ACCIDENT TYPE				
	FATAL	INJURY	P. DAMAGE	TOTAL	% EACH CATEGORY
VEHICLE	95	14570	37218	51883	94.4
TRAIN	1	11	13	25	-.-
BICYCLIST	6	314	20	340	0.6
MOTORCYCLE	2	99	45	146	0.3
MOPED	0	1	1	2	-.-
ANIMAL	0	114	2295	2409	4.4
PEDESTRIAN	0	1	2	3	-.-
FARM MACHINERY	0	5	33	38	0.1
CONSTRUCTION MACHINERY	0	18	95	113	0.2
SNOWMOBILE	0	19	6	25	-.-
OFF-ROAD VEHICLE	1	5	2	8	-.-
TOTAL	105	15157	39730	54992	100.0

VEHICLE INVOLVEMENT IN TRAFFIC ACCIDENTS INVOLVING NON-COLLISION EVENT BY ACCIDENT TYPE 1990

NON-COLLISION EVENT	ACCIDENT TYPE				
	FATAL	INJURY	P. DAMAGE	TOTAL	% EACH CATEGORY
RAN OFF ROAD	9	407	602	1018	52.2
OVERTURNED	2	67	92	161	8.3
FIRE/EXPLOSION	0	1	190	191	9.8
SKIDDING/SLIDING	6	155	382	543	27.8
JACK-KNIFING	0	4	31	35	1.8
SUBMERSION	0	0	1	1	0.1
TOTAL	17	634	1298	1949	100.0

SECTION 8

DRIVER INVOLVEMENT

1990

SYNOPSIS

- The highest relative involvement in traffic accidents occurred in the age group 16 - 19, at 175/1000 drivers, and 20 - 24, 145/1000 at drivers. The lowest relative involvement occurred in the age group 65 - 74, at 53/1000 drivers, and 75+, at 55/1000 drivers. The overall relative involvement average for all age groups in 1990 was 89/1000.

- In 1990, 56794 drivers were involved in traffic accidents, a decrease of 5.9% from the 1989 total of 60378.

TRAFFIC ACCIDENT DRIVER INVOLVEMENT BY AGE AND SEX OF DRIVER AND ACCIDENT TYPE 1990

AGE/SEX		ACCIDENT TYPE							
		FATAL	% ALL DRIVERS	INJURY	% ALL DRIVERS	P. DAMAGE	% ALL DRIVERS	TOTAL	% ALL DRIVERS
UNDER 16	M	0		26		53		79	
	F	0		18		32		50	
	NS	0		0		1		1	
	T	0	0.0	44	0.3	86	0.2	130	0.2
16 - 19	M	14		1504		3805		5323	
	F	3		781		1655		2439	
	NS	0		3		2		5	
	T	17	11.1	2288	13.6	5462	13.7	7767	13.7
20 - 24	M	15		1757		4130		5902	
	F	5		985		1722		2712	
	NS	0		6		3		9	
	T	20	13.1	2748	16.3	5855	14.7	8623	15.2
25 - 34	M	38		3041		6919		9998	
	F	7		1659		3226		4892	
	NS	0		4		2		6	
	T	45	29.4	4704	28.0	10147	25.5	14896	26.2
35 - 44	M	21		1920		4864		6805	
	F	8		1220		2716		3944	
	NS	0		2		6		8	
	T	29	19.0	3142	18.7	7586	19.1	10757	18.9
45 - 54	M	7		1102		2946		4055	
	F	3		606		1324		1933	
	NS	0		1		3		4	
	T	10	6.5	1709	10.2	4273	10.7	5992	10.5
55 - 64	M	8		797		2224		3029	
	F	2		316		849		1167	
	NS	0		0		2		2	
	T	10	6.5	1113	6.6	3075	7.7	4198	7.4
65 - 74	M	9		490		1497		1996	
	F	6		209		616		831	
	NS	0		0		0		0	
	T	15	9.8	699	4.1	2113	5.3	2827	5.0
75+	M	5		250		718		973	
	F	1		67		244		312	
	NS	0		0		1		1	
	T	6	3.9	317	1.9	963	2.4	1286	2.3
AGE NOT STATED	M	0		4		19		23	
	F	0		3		10		13	
	NS	1		49		232		282	
	T	1	0.7	56	0.3	261	0.7	318	0.6
ALL AGES	M	117		10891		27175		38183	
	F	35		5864		12394		18293	
	NS	1		65		252		318	
	T	153	100.0	16820	100.0	39821	100.0	56794	100.0

* N.S. - NOT STATED

TRAFFIC ACCIDENT DRIVER INVOLVEMENT BY AGE AND SEX AND RELATIVE INVOLVEMENT OF MANITOBA DRIVERS 1990

AGE/SEX		TOTAL DRIVERS INVOLVED	% EACH GROUP	TOTAL ACTIVE DRIVERS	% EACH GROUP	RELATIVE INVOLVEMENT RATE/1000
UNDER 16	M	79		0		
	F	50		0		
	NS	1		0		
	T	130	0.2	0	0.0	
16 - 19	M	5323		23254		
	F	2439		21049		
	NS	5		0		
	T	7767	13.7	44303	6.9	175
20 - 24	M	5902		30327		
	F	2712		29029		
	NS	9		0		
	T	8623	15.2	59356	9.3	145
25 - 34	M	9998		79393		
	F	4892		75475		
	NS	6		0		
	T	14896	26.2	154868	24.3	96
35 - 44	M	6805		72671		
	F	3944		68228		
	NS	8		0		
	T	10757	18.9	140899	22.0	76
45 - 54	M	4055		48517		
	F	1933		42085		
	NS	4		0		
	T	5992	10.5	90602	14.2	66
55 - 64	M	3029		40054		
	F	1167		31195		
	NS	2		0		
	T	4198	7.4	71249	11.2	59
65 - 74	M	1996		30762		
	F	831		23057		
	NS	0		0		
	T	2827	5.0	53819	8.4	53
75+	M	973		15312		
	F	312		8036		
	NS	1		0		
	T	1286	2.3	23348	3.7	55
AGE NOT STATED	M	23		0		
	F	13		0		
	NS	282		0		
	T	318	0.6	0	0.0	
ALL AGES	M	38183				
	F	18293		340290		
	NS	318		298154		
	T	56794	100.0	638444	100.0	89

* N.S. - NOT STATED

TRAFFIC ACCIDENT DRIVER INVOLVEMENT BY DRIVER EXPERIENCE AND ACCIDENT TYPE 1990

DRIVER EXPERIENCE	ACCIDENT TYPE				
	FATAL	INJURY	P. DAMAGE	TOTAL	% EACH CATEGORY
LESS THAN 3 MONTHS	0	136	357	493	0.9
3 TO 6 MONTHS	1	233	563	797	1.4
7 TO 11 MONTHS	0	161	431	592	1.0
1 TO 2 YEARS	11	1587	3596	5194	9.2
3 TO 5 YEARS	11	2130	4539	6680	11.8
6 TO 10 YEARS	16	2718	5791	8525	15.0
11+ YEARS	46	7904	19555	27505	48.4
NOT STATED	68	1951	4989	7008	12.3
TOTAL	153	16820	39821	56794	100.0

SECTION 9

MAJOR CONTRIBUTING FACTORS TO ACCIDENT CAUSATION

1990

"Major Contributing Factor" data represents the first factor identified by police officers as contributing to accident causation. In 1990, 26341 factors were identified as contributing to 36211 traffic accidents.

HUMAN ACTION

* Major contributing factors under human action, in descending order, were driving too fast for conditions, following too closely, and failure to yield right of way.

HUMAN CONDITION

* Under driver condition, major contributing factors were ability impaired by alcohol, had been drinking and extreme fatigue/fell asleep.

VEHICULAR DEFECTS

* Major vehicular contributing factors were faulty brakes, fire and faulty tires.

ENVIRONMENTAL CONDITIONS

* Under environmental conditions, major contributing factors were slippery surfaces and (wild) animal action.

In total, human action and environmental conditions contributed most significantly to accident causation.

TRAFFIC ACCIDENT DRIVER INVOLVEMENT BY HUMAN ACTION AND ACCIDENT TYPE 1990

HUMAN ACTION	ACCIDENT TYPE							
	FATAL	% EACH GROUP	INJURY	% EACH GROUP	P. DAMAGE	% EACH GROUP	TOTAL	% EACH GROUP
DRIVING PROPERLY *	88	57.4	12407	73.8	30016	75.4	42511	74.9
DRIVING TOO FAST FOR CONDITIONS	14	9.1	730	4.4	1464	3.7	2208	3.9
FOLLOWING TOO CLOSELY	0	0.0	894	5.3	1152	2.9	2046	3.6
FAILED TO YIELD RIGHT OF WAY	6	3.9	604	3.6	1213	3.1	1823	3.2
LOST CONTROL/ DRIVE OFF ROADWAY	16	10.5	443	2.6	899	2.3	1358	2.4
BACKING UNSAFELY	0	0.0	85	0.5	1491	3.7	1576	2.8
TURNING IMPROPERLY	0	0.0	256	1.5	768	1.9	1024	1.8
CARELESS DRIVING	3	1.9	351	2.1	618	1.6	972	1.7
DISOBEYED TRAFFIC CONTROL DEVICES	6	3.9	389	2.3	472	1.2	867	1.5
DRIVER INEXPERIENCE	2	1.3	207	1.2	456	1.1	665	1.2
CHANGING LANES IMPROPERLY	1	0.7	100	0.6	453	1.1	554	1.0
LEAVE STOP SIGN BEFORE SAFE TO DO SO	1	0.7	199	1.2	378	1.0	578	1.0
PASSING IMPROPERLY	1	0.7	41	0.2	154	0.4	196	0.3
EXCEEDING SPEED LIMIT	8	5.2	62	0.4	53	0.1	123	0.2
PARKING IMPROPERLY	0	0.0	4	-.-	122	0.3	126	0.2
DRIVING WRONG WAY ON ROADWAY	5	3.3	18	0.1	22	-.-	45	0.1
FAILED TO SIGNAL	1	0.7	9	0.1	41	0.1	51	0.1
DRIVERLESS VEHICLE RAN OUT OF CONTROL	1	0.7	7	-.-	47	0.1	55	0.1
PASSING A VEHICLE AT PEDESTRIAN X-WALK	0	0.0	14	0.1	2	-.-	16	-.-
TOTAL	153	100.0	16820	100.0	39821	100.0	56794	100.0

* NO APPARENT IMPROPER ACTION

TRAFFIC ACCIDENT DRIVER INVOLVEMENT BY HUMAN CONDITION AND ACCIDENT TYPE 1990

HUMAN CONDITION	ACCIDENT TYPE				
	FATAL	INJURY	P. DAMAGE	TOTAL	% EACH CATEGORY
APPARENTLY NORMAL	122	16341	39281	55744	98.2
LOSS OF CONSCIOUSNESS	0	31	17	48	0.1
EXTREME FATIGUE/FELL ASLEEP	3	76	75	154	0.3
DEFECTIVE EYESIGHT	0	9	13	22	-.-
DEFECTIVE HEARING	0	2	4	6	-.-
MEDICAL DISABILITY	0	2	3	5	-.-
PHYSICAL DISABILITY	1	3	3	7	-.-
MENTAL DISABILITY	0	3	5	8	-.-
MENTAL CONFUSION/ UNABLE TO REMEMBER	0	12	15	27	0.1
SUDDEN ILLNESS	0	6	6	12	-.-
ABILITY IMPAIRED BY ALCOHOL	16*	191	245	452	0.8
ABILITY IMPAIRED BY DRUGS	0*	6	4	10	-.-
HAD BEEN DRINKING	11*	138	150	299	0.5
TOTAL	153	16820	39821	56794	100.0

* THESE STATISTICS ARE UNDERSTATED, GIVEN THAT THEY REPRESENT ONLY THOSE ACCIDENTS IN WHICH ALCOHOL INVOLVEMENT WAS READILY APPARENT AT THE TIME OF ACCIDENT OCCURRENCE.

VEHICLE INVOLVEMENT IN TRAFFIC ACCIDENTS BY VEHICULAR DEFECT AND ACCIDENT TYPE 1990

VEHICULAR DEFECT	ACCIDENT TYPE				
	FATAL	INJURY	P. DAMAGE	TOTAL	% EACH CATEGORY
NO APPARENT DEFECT	159	17344	44359	61862	98.6
BRAKES	0	72	124	196	0.3
STEERING	0	25	26	51	0.1
HEADLIGHTS	0	5	7	12	-.-
TAIL LIGHTS	0	3	10	13	-.-
OTHER LIGHTING	0	4	11	15	-.-
ENGINE CONTROLS/POWER TRAIN	0	23	75	98	0.2
SUSPENSION OR WHEEL FAILURE	1	11	41	53	0.1
TIRES	1	67	90	158	0.3
TOW HITCH	0	1	23	24	-.-
EXHAUST SYSTEM	0	0	2	2	-.-
HOOD/TAILGATE	0	3	13	16	-.-
INSECURED LOAD/OVERLOADED	1	11	37	49	0.1
VEHICLE MODIFICATIONS	0	0	7	7	-.-
FIRE	0	2	179	181	0.3
TOTAL	162	17571	45004	62737	100.0

VEHICLE INVOLVEMENT IN TRAFFIC ACCIDENTS BY ENVIRONMENTAL CONDITION AND ACCIDENT TYPE 1990

ENVIRONMENTAL CONDITION	ACCIDENT TYPE				
	FATAL	INJURY	P.DAMAGE	TOTAL	% EACH CATEGORY
NO APPARENT CONTRIBUTING CONDITION	135	15353	37116	52604	83.9
ANIMAL ACTION-WILD	0	168	2243	2411	3.8
ANIMAL ACTION-DOMESTIC	0	25	181	206	0.3
SURFACE SLIPPERY	20	1493	4215	5728	9.2
SNOW DRIFT	0	35	142	177	0.3
OBSTRUCTION/DEBRIS	0	27	104	131	0.2
VIEW OBSTRUCTED/LIMITED	1	207	507	715	1.1
GLARE	2	66	96	164	0.3
CONSTRUCTION ZONE	1	35	77	113	0.2
DEFECTIVE ROAD SURFACE	3	111	224	338	0.5
SHOULDERS DEFECTIVE	0	14	32	46	0.1
LANE MARKINGS INADEQUATE	0	0	8	8	-.-
TRAFFIC CONTROL DEVICE NOT WORKING	0	8	8	16	-.-
WIND	0	15	45	60	0.1
PEDESTRIAN CORRIDOR IN USE	0	14	6	20	-.-
TOTAL	162	17571	45004	62737	100.0